

Application No: 09/433,202

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1.-38. (Canceled)

39. (New) A collection of particles comprising a compound selected from the group consisting of CeO_2 , ZrO_2 , alumina silicate, alumina titanate and mixtures thereof, and having an average primary particle diameter less than about 500 nm and less than about one in 10^6 particles having a primary particle diameter greater than about four times the average primary particle diameter.

40. (New) The collection of particles of claim 39 wherein the average primary particle diameter is less than about 100 nm.

41. (New) The collection of particles of claim 39 wherein the average primary particle diameter is from about 5 nm to about 50 nm.

42. (New) The collection of particles of claim 39 wherein the particles comprise CeO_2 .

43. (New) The collection of particles of claim 39 wherein the particles comprise ZrO_2 .

Application No: 09/433,202

44. (New) The collection of particles of claim 39 wherein the particles comprise alumina titanate.

45. (New) The collection of particles of claim 39 wherein the particles comprise alumina silicate.

46. (New) The collection of particles of claim 39 wherein less than about one in 10^6 particles having a primary particle diameter greater than about three times the average primary particle diameter.

47. (New) The collection of particles of claim 39 wherein less than about one in 10^6 particles having a primary particle diameter greater than about two times the average primary particle diameter.

48. (New) The collection of particles of claim 39 wherein the collection of particles have a distribution of diameters of the primary particles such that at least about 95 percent of the primary particles have a diameter greater than about 40 percent of the average diameter and less than about 160 percent of the average diameter.

49. (New) A structure comprising a coating on a substrate, the coating comprising the particle collection of claim 39.

50. (New) A particle dispersion comprising the particle collection of claim 39 and a liquid.

Application No: 09/433,202

51. (New) The particle dispersion of claim 50 having an average secondary particle size less than about 1000 nm.
52. (New) The particle dispersion of claim 50 further comprising a surfactant.
53. (New) The particle dispersion of claim 50 wherein the liquid comprises water.
54. (New) The particle dispersion of claim 50 wherein the liquid comprises an organic liquid.
55. (New) The particle dispersion of claim 50 wherein the liquid comprises a solution of water and an organic solvent.
56. (New) The particle dispersion of claim 50 wherein the concentration of the collection of particles is less than about 30 weight percent.
57. (New) The particle dispersion of claim 50 wherein the concentration of the collection of particles is less than about 5 weight percent.
58. (New) A method of polishing a surface comprising abrading the surface with a dispersion of claim 50.